

CUSTOMER NO.: 24498**Serial No. 09/936,983**

Reply to Final Office Action dated: 11/15/06

Response dated: 04/09/07

**PATENT
PD990019****REMARKS**

In the Final Office Action, the Examiner stated that claims 13-28 are pending in the application and that claims 13-28 stand rejected. By this response, claim 13 has been amended to more clearly define the invention of the Applicant and not in response to prior art. All other claims are unamended by this response.

In view of the amendments presented above and the following discussion, the Applicant respectfully submits that none of these claims now pending in the application are rendered obvious under the provisions of 35 U.S.C. § 103. Thus the Applicant believes that all of these claims are now in allowable form.

Rejections**A. 35 U.S.C. § 103**

The Examiner rejected the Applicant's claims 13-28 under 35 U.S.C. § 103(a) as being unpatentable over Kikuchi et al. (US Patent No. 5,870,523, hereinafter "Kikuchi") in view of Willis (U.S. Patent No. 6,154,603). The rejection is respectfully traversed.

The Examiner cites Kikuchi for teaching a method for recording a bitstream on a bitstream recorder such that the recorded bitstream can be replayed in a trick play mode including all of the elements of the Applicant's invention except that Kikuchi fails to teach that the access unit information allow for the recorded bitstream to be used for trick play operations. As such, the Examiner cites Willis for teaching a system for decoding pictures for trick play operations. The Examiner alleges that in Willis, the access unit allows the recorded bitstream to be accessible for trick play and that the combination of the teachings of Kikuchi and Willis make obvious the invention of the Applicant. The Applicant respectfully disagrees.

The Applicant respectfully submits Kikuchi and Willis, alone or in any allowable combination, absolutely fail to teach, suggest or anticipate at least the Applicant's claim 13, which specifically recites:

"A method for recording a bitstream on a bitstream recorder such that the recorded bitstream can be replayed in a trick play mode, the method comprising:

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recording said bitstream in predetermined-size stream object units, said recorded bitstream having data contained in application packets that are contained in said stream object units;

defining access units as parts of said recorded bitstream that are accessible for said trick play mode, wherein access unit information is associated with said bitstream and with related navigation data to be recorded; and

recording an access unit start map for said access unit information, **wherein in said access unit start map a respective single flag is assigned to each one of said stream object units**, each of said flags indicating with a first value that the start of one of said access units is contained within a range of said recorded bitstream consisting of a corresponding stream object unit and the immediately subsequent stream object unit, or indicating with a second value that no corresponding access unit exists for that flag and its related stream object unit." (emphasis added).

As clearly evident from the portions of the Applicant's Specification presented above and as claimed in at least the Applicant's claim 13, in the invention of the Applicant mixing effects which have a rhythmic dynamic range are generated because a third modulation signal is derived from an audio signal.

In contrast to the invention of the Applicant, Kikuchi discloses a system in which **multiple** forward address values FWDANn for different trick play speeds are arranged in a table. Each address value data field (Fig.35b) contains two flags. The first flag indicates whether or not video data exists in the VOB to which the corresponding address value FWDANn is pointing. This means that these video data may be any kind of video data, not specific video data suitable for starting or continuing trick play speed reproduction.

In Kikuchi, the second flag indicates whether or not any video data exists between the current address value (i.e. before making a jump to trick play mode video data) and the specific address value FWDANn belonging to the current address value data field, i.e. any video data that do not correspond to the desired trick play speed.

In the invention of the Applicant, however, at least with respect to claim 13, a **single flag**, which is independent from any specific trick play speed, defines for each stream object unit SOBU#n and the following stream object unit SOBU#n+1 whether or not it contains access unit data AU, wherein 'access unit' means a data section that can be used to access the bitstream for trick play reproduction, i.e. not

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any kind of video data but specific kind of video data that is required for facilitating trick play reproduction (i.e., 1 frame video data (cf. page 4, lines 26-27 and p.5, II.20-21 of the WO publication)).

This means that in Kikuchi, if no video data exists in the desired SOBU, any video data located between the current VOB and the desired VOB is taken, (i.e., video data arranged **before** the desired VOB). In contrast, in the invention of the Applicant, if required access unit data is there but no access unit data exists in the desired SOBU, the access unit data is taken from the following SOBU (i.e., access unit data arranged **beyond** the desired SOBU). In further contrast to the invention of the Applicant, the invention of Kikuchi needs many more flags (multiple times two per possible trick play speed) than in the invention of the Applicant (one per SOBU).

Even further, the Applicant respectfully submits that the teachings of Willis absolutely fail to bridge the substantial gap between the invention of the Applicant and the teachings of Kikuchi. More specifically, there is absolutely no teaching, suggestion or disclosure in Willis for a method for recording a bitstream on a bitstream recorder such that the recorded bitstream can be replayed in a trick play mode including "recording an access unit start map for said access unit information, **wherein in said access unit start map a respective single flag is assigned to each one of said stream object units**, each of said flags indicating with a first value that the start of one of said access units is contained within a range of said recorded bitstream consisting of a corresponding stream object unit and the immediately subsequent stream object unit, or indicating with a second value that no corresponding access unit exists for that flag and its related stream object unit" as taught in the Applicant's specification and claimed by at least the Applicant's claim 13.

In contrast to the invention of the Applicant, Willis merely teaches a method for picture decoding and display in an apparatus reproducing from a digital disk. The method of Willis includes the steps of transducing a digitally encoded signal from the disk, storing the digitally encoded signal in a first memory, decoding the digitally encoded signal to produce a picture, storing the picture in a second memory, coupling the picture from the second memory for display, and controlling the storing in the second memory and the coupling for display to occur

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substantially concurrently. However, there is absolutely no teaching or suggestion in Willis for at least "recording an access unit start map for said access unit information, wherein in said access unit start map a respective single flag is assigned to each one of said stream object units, each of said flags indicating with a first value that the start of one of said access units is contained within a range of said recorded bitstream consisting of a corresponding stream object unit and the immediately subsequent stream object unit, or indicating with a second value that no corresponding access unit exists for that flag and its related stream object unit" as taught in the Applicant's Specification and claimed by at least the Applicant's claim 13.

As such and for at least the reasons recited above, the Applicant submits that Kikuchi and Willis, alone or in any allowable combination fail to teach, suggest or make obvious at least the Applicant's claim 13.

Therefore, the Applicant submits that for at least the reasons recited above, the Applicant's claim 13 is not rendered obvious by the teachings of Kikuchi and Willis, alone or in any allowable combination, and, as such, fully satisfies the requirements of 35 U.S.C. § 103 and is patentable thereunder.

Likewise, the Applicant's independent claims 22 and 28 recite similar relevant features as recited in the Applicant's claim 13. As such and for at least the reasons recited above, the Applicant submits that independent claims 22 and 28 are also not rendered obvious by the teachings of Kikuchi and Willis, alone or in any allowable combination, and as such, fully satisfy the requirements of 35 U.S.C. § 103 and are patentable thereunder.

Furthermore, the Applicant's dependent claims 13-21 and 23-27 depend either directly or indirectly from the Applicant's Independent claims 13 and 22, respectively, and recite additional features thereof. As such, the Applicant submits that at least because the Applicant's claims 13 and 22 are not rendered obvious by the teachings of Kikuchi and Willis, alone or in any allowable combination, the Applicant further submits that the Applicant's dependent claims 13-21 and 23-27, which depend either directly or indirectly from the Applicant's claims 13 and 22, respectively, are also not rendered obvious by the teachings of Kikuchi and Willis, alone or in any allowable combination, and, as such, fully satisfy the requirements of 35 U.S.C. § 103 and are patentable thereunder.

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The Applicant reserves the right to establish the patentability of each of the claims individually in subsequent prosecution.

Conclusion

Thus the Applicant submits that none of the claims, presently in the application, are rendered obvious under the provisions of 35 U.S.C. § 103. Consequently, the Applicant believes that all these claims are presently in condition for allowance. Accordingly, both reconsideration of this application and its swift passage to issue are earnestly solicited.

If however, the Examiner believes that there are any unresolved issues requiring adverse final action in any of the claims now pending in the application, or if the Examiner believes a telephone interview would expedite the prosecution of the subject application to completion, it is respectfully requested that the Examiner telephone the undersigned.

No fee is believed due. However, if a fee is due, please charge the additional fee to Deposit Account No. 07-0832.

Respectfully submitted,

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